VOLUME IX INDEX 1991

Table Contents

JANUARY

- The Case of the Case Study, Douglas McCormick (opinion) No More Shallow Alarums, Bernard Dixon (opinion)
- Pfizer Biotech Forays, Centocor Financing (news) 11 CSF's Infection-Fighting Ability Recognized, Mark Ratner
- 19
- MIGISPeptides to Target B Cell Subtypes, Harvey Bialy (news)
- Biotransformation Technologies Scaled Up, Bernard Dixon
- Confronting Doubtful Oil Clean-Up Data, Jeffrey L. Fox (news)
- 14 NIH Panel OKs BST in Milk, Jeffrey L. Fox (news) Unified Approvals, Standards, John Hodgson (news)
- 15 Conflict of Interest: Round Two, Pamela Knight (news) 16
- Biotecha Plus According to European Poll, Bernard Dixon 16
- 17 U.S. and Europe Finding Common Ground, Pamela Knight
- Japan Roundup (news) 17
- Data-Directed Drug Design, John Hodgson (article) 19
- When Microheterogeneity Matters, Mark Ratner (article)
- Resource Allocation to Stage Agbiotech Research: 1982-1988, Charles E. Hess (article)
- Papers and Posters Presented at the 1991 Miami Bio/ Technology Winter Symposium-Advances in Gene Technology: The Molecular Biology of Human Genetic Disease, January 27-February 1, 1991, Miami Beach, Florida USA (article)
- Molecular Biology of Human Muscle Disease, Patrick W. Dunne, Henry F. Epstein (review)
- Production of Human Interleukin-3 Using Industrial Microorganisms, Rob W. van Leen, Janny G. Bakhuis, Ruud F.W.C. van Beckhoven, Herman Burger, Lambert C.J. Dorssers, Ronald W.J. Hommes, Patty J. Lemson, Bert Noordam, Niek L.M. Persoon, Gerard Wagemaker (case study in process development)
- An Epitope on Membrane-Bound but Not Secreted IgE: Implications in Isotype-Specific Regulation, Frances M. Davis,
- Lani A. Gossett, Tse Wen Chang (research)
 Synthesis of Wild Type and Mutant Human Hemoglobins in Sacharomyces cerevisiae, Michael Wagenbach, Katherine O'Rourke, Laura Vitez, Anna Wieczorek, Stephen Hoffman, Steven Durfee, John Tedesco, Gary Stetler (research)
- High Level Expression of the Humanized Monoclonal Antibody Campath-1H in Chinese Hamster Ovary Cells, Martin J. Page, Mark A. Sydenham (research)
- Isolation and Characterization of Carotenoid Hyperproducing 70 Mutants of Yeast by Flow Cytometry and Cell Sorting, Gil-Hwan

- An, Jane Bielich, Robert Auerbach, Eric A. Johnson (research)
- Unknown Sequence Amplification: Application to In Vitro Genome Walking in Chlamydia trachomatisk 2, C.G. Copley, C. Boot, K. Bundell, W.L. McPheat (research)
- Use of Agrobacterium rhizogenes to Create Chimeric Apple Trees through Genetic Grafting, Claude Lambert, David Tepfer (research)
- Manipulation of Corynebacterium glutamicum by Gene Disruption and Replacement, Astrid Schwarzer, Alfred Pühler (research)
- Rapid PCR-Cloning of Full-Length Mouse Immunoglobulin Variable Regions, S. Tarran Jones (article)
- Cloning Products (product page)
- 104 Contents (volume index)
- 107 Author Index (volume index)

FEBRUARY

- It Looks Like Up to Me, Douglas McCormick (opinion)
- When Pastis Prologue, Bernard Dixon (opinion)
- Sterling Meets Sanofi, New Entities Abound (news)
- Mid-East Preparedness Revives Federal Secrecy, Jeffrey L. Fox
- Alliances Validate Liposome Co. Work, Mark Ratner (news)
- Vector May Help Direct Oxford Virology, John Hodgson (news) Top Tier Strong Entering '91, Mark Ratner (news) 125
- 128
- Japan Roundup (news) 130
- Despite the Best of Intentions (book review) 139 133
- The Unsensored Version (book review) 137
- Artificial Organs from Culture, Jennifer Van Brunt (article) 139 Locations and Design: Two Sides of a Coin, Lantz Miller (article)
- Transferring In Vivo Technology to the Field, D.R. Miller (article) 143 Chromatography of Complex Carbohydrates, John Hodgson
- (article) Metal-Affinity Separations: A New Dimension in Protein
 - Processing, Frances H. Arnold (review)
- Renaturation, Purification and Characterization of Recombinant Fab-Fragments Produced in Escherichia coli, Johannes Buchner, Rainer Rudolph (research)
- Single Chain Antibody (SCA) Encoding Genes: One-Step Construction and Expression in Eukaryotic Cells, Georg Davis, William D. Bedzyk, Edward W. Voss, Thomas W. Jacobs
- A Genetic System to Elicit and Monitor Anti-Peptide Antibodies Without Peptide Synthesis, P. Martineau, A. Charbit, C. Leclerc, C. Werts, D.O. Callaghan, M. Hofnung (research)
- Regulated Expression Allows High Level Production and Secretion of HIV-1 gp120 Envelope Glycoprotein in Drosophila Schneider Cells, Jeffrey S. Culp, Hanne Johansen, Brian Hellmig, Jeffrey Beck, Thomas J. Matthews, Anne Delers, Martin
- Rosenberg (research) Heritable Damage to Yeast Caused by Transformation, Nadia Danhash, David C.J. Gardner, Stephen G. Oliver (research)
- Saccharomyces cerevisiaeStrains that Overexpress Heterologous Proteins, D. Sleep, G.P. Belfield, D.J. Ballance, J. Steven, S. Jones, L.R. Evans, P.D. Moir, A.R. Goodey (research)
- Construction of a 7-Aminocephalosporanic Acid (7ACA) Biosynthetic Operon and Direct Production of 7ACA in Acremonium chrysogenum, Takao Isogai, Masao Fukagawa, Ichiro Aramori, Morita Iwami, Hitoshi Kojo, Takaharu Ono, Yoshio Ueda, Masanobu Kohsaka, Hiroshi Imanaka (research)
- Chromatography Products (product page) 197 Cetus Commentaries: Caution Defended (letters)

MARCH

- 209 Roberts Rules of Disorder, Douglas McCormick (opinion)
- 211 Sound Speculations, Bernard Dixon (opinion)
- Orphan Drug Decisions, Stocks Soaring (news)
 - 218 More for Research but also FDA User Fees, Jeffrey L. Fox (news)
- Between the Map and the Territory, Harvey Bialy (news)
- 221 Selling Celtrix, B.J. Spalding (news)

224 Protein Conformity and Conformation, John Hodgson

226 Wet White Mice, Miriam I. Jacob (news)

U.K. Targets some Gene-Modified Foods, Bernard Dixon 997

Downstream Processing: Key to Slashing Production Costs 100 229 Fold, B.J. Spalding (article)

237 Peptide Synthesis gets Friendly, John Hodgson (article) Regulatory '91 Issues: What the U.S. Biopharmaceutical Industry 244

Wants, Lisa J. Raines (article)

Aqueous Two-Phase Extraction in Bioseparations: An Assessment, Subhas K. Sikdar (article)

New Perspectives on Catalytic Antibodies, Jeffrey W. Jacobs 258 (review)

Reshaping a Human Monoclonal Antibody to Inhibit Human Respiratory Synctial Virus Infection In Vivo, Philip R. Tempest, Patricia Bremner, Martin Lambert, Geraldine Taylor, Julie M. Furze, Frank J. Carr, William J. Harris (research)

The Functional Expression of Antibody F, Fragments in Escherichia coli: Improved Vectors and a Generally Applicable Purification Technique, Arne Skerra, Ilse Pfitzinger, Andreas

Plückthun (research)

Continuous Regeneration of NAD(H) Covalently Bound to a Cysteine Genetically Engineered into Glucose Dehydrogenase. Mats Persson, Mats-Olle Mansson, Leif Bülow, Klaus Mosbach (research)

A New Model for Enzymatic Hydrolysis of Cellulose Based on the Two-Domain Structure of Cellobiohydrolase I, Jerry Ståhlberg, Gunnar Johansson, Göran Pettersson (research)

Heterologous Gene Expression in Hansenula polymorphia: Efficient Secretion of Glucoamylase, Gerd Gellissen, Zbigniew A. Janowicz, Armin Merckelbach, Michael Piontek, Peter Keup Ulrike Weydemann, Cornelis P. Hollenberg, Alexander W.M. Strasser (research)

A Pseudomonas putida Strain able to Degrade M-Toluate in the Presence of 3-Chlorocatechol, Alain Wasserfallen, Monique

Rekik, Shigeaki Harayama (research)

APRIL

313 Canaryin a Coal Mine, Douglas McCormick (opinion) 315 Boosting Biocontrol Efforts, Bernard Dixon (opinion)

Products Approved, Patents Provoked (news)

- Quayle Likes Biotech, Not Regulation, Jeffrey L. Fox (news)
- 326 Guidelines Drafted, Still Not Released, Jeffrey L. Fox (news)

EPO, Factor VIII Shockers, Mark Ratner (news) 327 Biotech Executives Exude Confidence, Mark Ratner (news)

- 329 Mitochondrial Defects and Disease, John Hodgson (news)
- Standardization and Global Markets, B.J. Spalding (news) From the Bench to the Boardroom, Jennifer Van Brunt (book 332 review)
- 334 Three Views of Japanese Biotech, Jennifer Van Brunt (book review)

338 A Growth Market for Bioreactors?, B.J. Spalding (article)

- Reverse Genetics: Its Origins and Prospects, Paul Berg (article) 342 How FDA Approved Chymosin: A Case History, Eric L. Flamm 349
- Micro-Imaging: InVivo Veritas, John Hodgson (article)
- Oligonucleoside Methylphosphonates as Antisense Reagents,

Paul S. Miller (review)

- Facilitated In Vitro Refolding of Human Recombinant Insulin-Like Growth Factor I Using a Solubilizing Fusion Partner, Elisabet Samuelsson, Henrik Wadensten, Maris Hartmanis. Tomas Moks, Mathias Uhlén (research)
- Bioconversion of N-Octane to Octanoic Acid by a Recombinant Escherichia coli Cultured in a Two-Liquid Phase Bioreactor, Olivier Favre-Bulle, Toine Schouten, Jaap Kingma, Bernard Witholt

The Development of Virus-Resistant Alfalfa, Medicago sativa L., Karen K. Hill, Nancy Jarvis-Eagan, Edward L. Halk, Karen J. Krahn, Louise W. Liao, Reyne S. Mathewson, Donald J. Merlo, Steven E. Nelson, Kay E. Rashka, L. Sue Loesch-Fries (research)

Efficient Kex2-Like Processing of a Glucoamylase-Interleukin-6 Fusion Protein by Aspergillus nidulans and Secretion of Mature Interleukin-6, Roland Contreras, Dirk Carrez, James R. Kinghorn, Cees A.M.J.J. van den Hondel, Walter Fiers (research)

Microscopy Products (product page) Mendelevand Sputnik, Stephen Rosen (opinion)

MAY

Bio-Biz Quiz, Douglas McCormick (opinion)

403 Revelations Recurring, Bernard Dixon (opinion)

404 Regeneron Gets Rich, Offerings Abound (news)
Waiting for Antisense to Deliver, Mark Ratner (news) 410

Therapy Improves Four, B.J. Spalding (news) 413

Key Structure of Viral Enzyme Solved, Mark Ratner (news) 414

415 B.T. Toxins Studied, Bernard Dixon (news)

- 417 Spring Fling for Testing, Jeffrey L. Fox (news) Glycosylation Enhances Stability, Bernard Dixon (news) 418 419
- Assays a la Photolithography, John Hodgson (news) Making Monoclonals in Microbes, John Hodgson (article) 427 Payer Pressure: The Emerging Force in Drug Development, B.J.
- Spalding (article) 430 From Startup to Star: How Biotech CZOs Get the Job Done, James S.J. Manuso (article)

435 The German Engineering Act, Klaus Fritsch (article)

430 Assaying Cytokines, Jennifer Van Brunt (article) 443 Predicting the Solubility of Recombinant Proteins in Escherichia coli, David L. Wilkinson, Roger G. Harrison (review)

450 Piezoelectric Cell Growth Sensor, Richard C. Ebersole, Robert I Foss, Michael D. Ward (research)

High-Level Expression of Tetanus Toxin Fragment C in Pichia pastoris Strains Containing Multiple Tandem Integrations of the Gene, J.J. Clare, F.B. Rayment, S.P. Ballantine, Sreekrishna, M.A. Romanos (research)

Transformation and Regeneration of a Nitrogen-Fixing Tree, Allocasuarina verticillata Lam., Michèle Phelep, Annik Petit, Lori Martin, Emile Duhoux, Jacques Tempé (research)

A Novel Synthetic Method for Hybridoma Cell Encapsulation, Carmen Bañó, Smadar Cohen, Karyn B. Visscher, Harry R. Allcock, Robert Langer (research)

Actinorhodin Production by Streptomyces coelicolor and Growth of Streptomyces lividans are Improved by the Expression of a Bacteri Hemoglobin, Sharon K. Magnolo (research)

Broad Host-Range Vector for Efficient Expression of Foreign Genes in Gram-Negative Bacteria, Shaukat H. Rangwala, Deborah L. Leenutaphong, John A. DeModena, Joseph E. Curti James E. Bailey, Jorge L. Galazzo, Dallas E. Hughes (research)

Diagnostic Kits for Cytokines (product page)
ABC and IBA: Appropriate and Inevitable, Pamela J. Bridgen (opinion)

JUNE

Normal Accidents, Douglas McCormick (opinion) 497

Farm Out the Responsibility, Bernard Dixon (opinion)

Cancer Allies, More Cash to Companies (news

ECPolicy: Harmonize of Compromise? John Hodgson (news)

506 Immunophilin Structure via NMR, Mark Ratner (news) 507 NSF Initiative: Layers Before Reality, Jeffrey L. Fox (news)

508

Denmark Bans use of Testing Info, John Hodgson (news) 508

Who Sets the Standards? Jeffrey L. Fox (news) Will Costs Set Coverage? B.J. Spalding (news) 500

510 Peptides no Small Thing to Danish Co., John Hodgson (news)

511 New Third World Agriculture Effort, David King (news) 513 Thrombolytics and Anti-Coagulants from Leeches, Roy T.

Sawver (article) Research Roundtable on Inflammation (article)

528 A Wealth of Novel Possibilities, Michael J. Eby (article)

533 A Role for Biotech in Producing Chemicals? Richard L. Hinma (article)

Edwards Commission: Weak Rx for Ailing U.S. FDA, B.J. 539 Spalding (article)

Antibody Engineering: Advances from the use of Escherichia col 545 Expression Systems, Andreas Plückthun (review)

DNA Amplification Fingerprinting using very Short Arbitrary Oligonucleotide Primers, Gustavo Caetano-Anollés, Brant J. Bassam, Peter M. Gresshoff (research)

Fermentation of a Yeast Producing A. NigerGlucose Oxidase: Scale-Up, Purification and Characterization of the Recombinan Enzyme, A. De Baetselier, A. Vasavada, P. Dohet, V. Ha-Thi, De Beukelaer, T. Erpicum, L. De Clerck, J. Hanotier, S. Rosenberg (research)

Cloning and Amplification of the Gene Encoding an Extracellu B-Glucosidase from Trichoderma reesei: Evidence for Improved Rates of Saccharification of Cellulosic Substrates, Christopher Barnett, Randy M. Berka, Tim Fowler (research)

Endothelial Cell-Selective Materials for Tissue Engineering in

Vascular Graft via a new Receptor, Jeffrey A. Hubbell, Stephen P. Massia, Neil P. Desai, Paul D. Drumheller

Electrophoresis Products (product page)

Errata; Overcoming Limits of Immunoconjugates (letters) IBA & ABC: A Difference in Perspective, Richard D. Godown

Control of Nature, Douglas McCormick (opinion) 503 595

Thriving on Litigation, Bernard Dixon (opinion) 596 Market for New Stock Offerings Cools (news)

600 Genzyme Strikes Gold with Ceredase, B.J. Spalding (news) Xoma Immunoconjugate Gets Early OK, Jeffrey L. Fox (news) 602 602

NIHRAC Approves More Clinical Tests, Jeffrey L. Fox (news) Scope Proposal Goes Another Round, Jeffrey L. Fox (news) 603

604 Bioreactors Crunch Nitrates, Jörg Bäsecke (news)

604 Prostaglandins from Yeast Could Lower Cost, Bernard Dixon (news)

606 Huge Effort on Chromosome, Jeffrey L. Fox (news)

Book Review, Jitendra Prakash (news) 607

600 Carbohydrate-Based Therapeutics, John Hodgson (article) 610 The Future of Glycobiology, Elizabeth Friedman (article)

Fetal-Tissue Research: Abortion Politics Slow Advances to a 615 Crawl, B.J. Spalding (article)

619 Patenting Animals in Europe, Richard E. Bizley

People for People: The Search Consultant in Biotechnology, Stephanie Jones, Peter Bassett (news)

628 Centrifugation takes a New Turn, John Hodgson (article) Inhibitors of Angiogenesis, Marsha A. Moses, Robert Langer 630

635 Using Antisense RNA to Study Gene Function: Inhibition of Carotenoid Biosynthesis in Transgenic Tomatoes, Colin R. Bird, John A. Ray, Jonathan D. Fletcher, Jeremy M. Boniwell, Alison S. Bird, Chantal Teulieres, Ian Blain, Peter M. Bramley, Wolfgang Schuch (research)

Engineering Proteins to Enhance Their Partition Coefficients in Aqueous Two-Phase Systems, Kristina Köhler, Charlotta Ljungquist, Akihiko Kondo, Andres Veide, Björn Nilsson

(research)

Real Time Automated Simultaneous Double-Stranded DNA Sequencing using Two-Color Fluorophore Labeling, Hideki Kambara, Keiichi Nagai, Satoko Hayasaka (research)

Phage Vectors that Allow Monitoring of Transcription of Secondary Metabolism Genes in *Streptomyces*, Celia J. Bruton, Ellen P. Guthrie, Keith F. Chater (research)

657 A Universal Method for the Direct Cloning of PCR Amplified Nucleic Acid, David A. Mead, N. Kristy Pey, Corinna Herrnstadt, Robert A. Marcil, Lloyd M. Smith (research)

Microcentrifuge Products (product page)

676 Entrepreneurial Professors, Vivian Moses (opinion)

Impure Information, Douglas McCormick (opinion) 681

Language, Culture, and Genetic Diversity, Bernard Dixon 683 (opinion)

EPO Patent Battle Still Raging (news) 684

690 R&D Spending Still Soaring, B.J. Spalding, Douglas McCormick

693 New Bioremediation Plan for U.S. EPA, Jeffrey L. Fox (news) 694 Receptor Screens Detect Bioactivity, Alison Abbott (news)

Gene Therapy for AIDS? Angiola Bono 694

Life's a Beach in Jurassic Park, Jeffrey L. Fox (news) 696 Substitutes for Human Blood, John Hodgson (news)

Battling Bacteria in Meat Products, Bernard Dixon (news) 697 Cancer Immunoconjugates: Will Clinical Success Lead to

Commercial Success? B.J. Spalding (article)

705 China's Biotechnology in Progress, Mang Ke-Qiang (article) Developing Biotechnology Opportunities in China, Han Ying-711

Shan (article) Media Selection and Design: Wise Choices and Common

Mistakes, David W. Jayme, Douglas J. Greenwold Structure and Morphology of Protein Inclusion Bodies in Escherichia coli, Gregory A. Bowden, Angel M. Paredes, George Georgiou (research)

Mutations in Human Interferon Gamma Affecting Inclusion Body Formation Identified by a General Immunochemical Screen, Ronald Wetzel, L. Jeanne Perry, Constance Veilleux (research)

Enhancing the Thermostability of Glucose Isomerase by Protein Engineering, Wim J. Ouax, Nadir T. Mrabet, Ruud G.M. Luiten, Paul W. Schuurhuizen, Patrick Stanssens, Ignace Lasters (research)

Stably Transformed Callus Lines from Microprojectile Bombardment of Cell Suspension Cultures of Wheat, Vimla Vasil, Sherri M. Brown, Diane Re, Michael E. Fromm, Indra K. Vasil (research)

Retrotransposon Gene Engineering, R. Frank Cook, Sheila J. Cook, Clague P. Hodgson (research)

Protection Against Detrimental Effects of Potyvirus Infection in Transgenic Tobacco Plants Expressing the Papaya Ringspot Virus Coat Protein, Kaishu Ling, Shigetou Namba, Carol Gonsalves, Jerry L. Slightom, Dennis Gonsalves (research)

Celland Tissue Culture Media (product page)

772 Cancer Research: For Whom? Robert K. Oldham (opinion)

SEPTEMBER

Ruminants, Douglas McCormick (opinion)

Infectious Diseases-A'Dead' Speciality Revives, Bernard Dixon (opinion)

780 Opposing Views on Streamlining FDA (news)

Transgenic Pharming Comes of Age, Harvey Bialy (news) 786 Chiron and Cetus Wed in \$660-Million Deal, B.J. Spalding 789

791 Backdoor Release of EPA Draft Rules, Jeffrey L. Fox (news) Du Pont Merck Ends Foster Care of hGH, Stephen M. Edgington

793 Eurobiotech Trails U.S. R&D Spending, John Hodgson (news)

British Bio-Tech Raises £40 Million, John Hodgson (news) U.S. Bipartisan Biotech Caucus, Jeffrey L. Fox (news)

1991 Bio/Technology Compensation Survey, Douglas

McCormick, Christine Punzo (article) Growth of Transformed C-127 Cell in Bioreactors for Large-

Scale T-PA Production, Edward R. McKillip, Adele S. Giles, Mark H. Levner, Paul P. Hung, Richard N. Hjorth (article) Yes, But..., John Hodgson (article)

Cell Culture Over-Sold, John Hodgson (article)

Patent Patterns in Biotech, B.J. Spalding (article)

Stock Offerings Raise a Staggering \$1.7 Billion, Mark Young

822 Wanted: Companies to Attack Aging, B.J. Spalding (article)

823

Why We Grow Old, B.J. Spalding (article)
Protein Aggregation In Vitroand In Vivo: A Quantitative Model of the Kinetic Competition Between Folding and Aggregation, Thomas Kiefhaber, Rainer Rudolph, Hans-Helmut Kohler, Johannes Buchner (review)

High Level Expression of Active Human Alpha-1-Antitrypsin in the Milk of Transgenic Sheep, G. Wright, A. Carver, D. Cottom, D. Reeves, A. Scott, P. Simons, I. Wilmut, I. Garner, A. Colman

Transgenic Production of a Variant of Human Tissue-Type Plasminogen Activator in Goat Milk: Generation of Transgenic Goats and Analysis of Expression, Karl M. Ebert, James P. Selgrath, Paul Di Tullio, Julie Denman, Thomas E. Smith, Mushtaq A. Memon, Joanne E. Schindler, Glen M. Monastersky, James A. Vitale, Katherine Gordon (research)

Transgenic Expression of a Variant of Human Tissue-Type Plasminogen Activator in Goat Mill: Purification and Characterization of the Recombinant Enzyme, Julie Denman, Michael Hayes, Christine O'Day, Timothy Edmunds, Catherine Bartlett, Shirish Hirani, Karl M. Ebert, Katherine Gordon, John M.

McPherson (research)

Generation of Transgenic Dairy Cattle Using 'In Vitro Embryo Production, Paul Krimpenfort, Adam Rademakers, Will Eyestone, Adriaan van der Schans, Sandra van den Brock, Patricia Kooiman, Erika Kootwijk, Gerard Platenburg, Frank Pieper, Rein Strijker, Herman de Boer (research)

Development of a Recombinant Baculovirus Expressing an Insect-Selective Neurotoxin: Potential for Pest Control, B.F. McCutchen, P.V. Choudary, R. Crenshaw, D. Maddox, S.G. Kamita, N. Palekar, S. Volrath, E. Fowler, B.D. Hammock, S. Maeda (research)

Agrobacterium-Mediated Transformation of Plum (Prunus domestica L.) Hypocotyl Slices and Regeneration of Transgenic Plants, S. Mante, P.H. Morgens, R. Scorza, J.M. Cordts, A.M. Callahan

Transformation of Melon (Cucumis meloL.) and Expression from

the Cauliflower Mosaic Virus 35S Promoter in Transgenic Melon Plants, Jin-Zhou Dong, Mei-Zhu Yang, Shi-Rong Jia, Nam-Hai Chua (research)

Agrobacterium-Mediated Transformation of Carnation (Dianthus caryophyllus L.), Chin-Yi Lu, Greg Nugent, Terese Wardley Richardson, Stephen F. Chandler, Richard Young, Michael J. Dallig (research)

Secretion of Active Bovine Somatotropin in Escherichia coli Barbara K. Klein, Stephen R. Hill, Catherine S. Devine, Edwin Rowold, Christine E. Smith, Sybille Galosy, Peter O. Olins (research)

Rapid Clonal Growth Measurements at the Single-Cell Level: Gel Microdroplets and Flow Cytometry, James C. Weaver, Jonathan G. Bliss, Kevin T. Powell, Gail I. Harrison, Gregory B. Williams

878 Bioreactors and Fermentors (product page)

OCTOBER

- Concordance Discord, Douglas McCormick (opinion)
- Out of the Neolithic Age, Bernard Dixon (opinion) 899
- From the Green to the Gene Revolution: Biotechnology and the 900 International Centers, Harvey Bialy (opinion)
- More Strategic Alliances for Biotech, Stephen M. Edgington 902
- 910 Centocor and Xoma Square Off, Mimi Bluestone (news)
- Do Patent Trials Hurt More than Help? Mimi Bluestone (news)
- FDA Gives Nod to Centocor, Passes on Xoma, Jeffrey L. Fox
- Products Crowd Sepsis Pipeline, Mimi Bluestone (news)
- Institutions Like First-Tier Companies, B.J. Spalding (news) Bright Future for GEMs? Shirley Lanning (news) 914 915
- 916
- Japanese Joint Ventures Come of Age, B.J. Spalding (news) 917
- U.S. Watchdogs Study Gene Therapy, Jeffrey L. Fox (news) 918 Network Works for Italian Firm, Angiola Bono (news)
- 919 SOD: Still a Cure Seeking a Disease, Richard Krebs (news)
- Characterizing Recombinant Proteins, Michael J. Geisow (article) 921
- 926 Mastering Biology, John Hodgson (article) Taxol: Out of the Woods, Stephen M. Edgington (article)
- 933
- A Rejection Profile Test for Ultrafiltration Membranes & 941 Devices, Gabriel Tkacik, Stephen Michaels (article)
- 947 Products in the U.S. Pipeline, Pharmaceutical Manufacturers Association (article)
- 951 Microbial Conversions of Low Rank Coals, Brendlyn D. Faison
- Production of Transgenic Rice (Oryza sativa L.) Plants from Agronomically Important Indica and Japonica Varieties via Electric Discharge Particle Acceleration of Exogenous DNA into Immature Zygotic Embryos, Paul Christou, Tameria L. Ford, Matt Kofron (research)

ADNA Transformation-Competent Arabidopsis Genomic Library in Agrobacterium, Gerard R. Lazo, Pascal A. Stein, Robert A. Ludwig (research)

- Stable Multicopy Vectors for High-Level Secretion of Recombinant Human Serum Albumin by Kluyveromyces Yeasts, R. Fleer, P. Yeh, N. Amellal, I. Maury, A. Fournier, F. Bacchetta, P. Baduel, G. Jung, H.L. Hôte, J. Becquart, H. Fukuhara, J.F. Mayaux (research)
- Commercial Levels of Chymosin Production by Aspergillus, Nigel S. Dunn-Coleman, Peggy Bloebaum, Randy M. Berka, Elizabeth Bodie, Nancy Robinson, Gale Armstrong, Michael Ward, Melinda Przetak, Gina L. Carter, Regina LaCost, Lori J. Wilson, Katherine H. Kodama, Enrique F. Baliu, Ben Bower, Michael Lamsa, Henry Heinsohn (research)

Production of Cyclodextrins, a Novel Carbohydrate, in the Tubers of Transgenic Potato Plants, J.V. Oakes, C.K. Shewmaker, D.M. Stalker (research)

- 987 Heterologous Production of a Ligninolytic Enzyme: Expression of the Phlebia radiata Laccase Gene in Trichoderma reesei, Markku Saloheimo, Marja-Leena Niku-Paavola (research)
- 991 Somatic Embryogenesis in Hybrid Tea Roses, Clemencia Noriega, Maro R. Söndahl (research)
- 994 Protein Stabilization by Engineered Metal Chelation, James T. Kellis, Jr., Robert J. Todd, Frances H. Arnold (research note)
- Efficient Transformation of Tobacco by Ultrasonication, Li-Jian Zhang, Le-Mei Cheng, Ning Xu, Nan-Ming Zhao, Chang-Gong Li, Jing Yuan, Shi-Rong Jia (research note)
- Filtration Products (product page)
- 1004 Correspondence

1012 Taxol, a Test for Technology Transfer, Bruce A. Chabner (opinion)

NOVEMBER

- 1017 Get Accredited, John Hodgson (opinion)
- 1019 Respecting Irrationality, Bernard Dixon (opinion)
- 1020 Genentech Enters Sepsis Race, Stephen M. Edgington (news) 1028 Will Kodak Foil Cetus's PCR Sale? Mimi Bluestone (news)
- 1028 Where Roche is Taking PCR, Mimi Bluestone (news)
- 1030 AHP Buys 60 Percent of GI, B.J. Spalding (news)
- 1032 Turning Promise into Reality, B.J. Spalding (news) 1034 EPA Moves on Bioremediation, Russ Hoyle (news)
- 1034 GE's One-Two Punch Against PCBs, Russ Hoyle (news)
- 1035 Favoring Rhone-Poulenc? John Hodgson (news)
- 1036 Venture Capital Lacks Capital, Stephen M. Edgington (news)
- 1036 Swedish Bankruptcy, Lotten Peterson (news) 1037 Gene Therapy Surges Forward, Jeffrey L. Fox (news)
- 1039 Food Proposals for FDA to Savor, Jeffrey L. Fox (news)
- 1042 Glial Cells, the Unsung Heroes of the Brain: One Company's View, Robert C.A. Frederickson, Jerry Silver (article)
- 1042 Gray Matter(s), Stephen M. Edgington (article)
- 1050 Black-Market Biotechnology: Athletes Abuse EPO and hGH, B.J. Spalding (article)
- 1056 Biotechnology Regulation in Europe, Simon Shackley, John Hodgson (article)
- 1063 Molecular Medicine: Too Much, Too Soon? Cynthia J. Schmeichel (article)
- 1067 Yeast Systems for the Commercial Production of Heterologous Proteins, Richard G. Buckholz, Martin A.G. Gleeson (review)
- 1073 Enzyme Engineering for Nonaqueous Solvents: Random Mutagenesis to Enhance Activity of Subtilisin Ein Polar Organic Media, Kegin Chen, Frances H. Arnold (research)
- 1080 Micro-Targeting: High Efficiency Gene Transfer Using A Novel Approach for the Acceleration of Micro-Projectiles, C. Sautter, H. Waldner, G. Neuhaus-Url, A. Galli, G. Neuhaus, I. Potrykus
- 1086 Improvement of a Baculovirus Pesticide by Deletion of the EGT Gene, David R. O'Reilly, Lois K. Miller (research)
- 1090 Xylitol Production by Recombinant Saccharomyces cerevisiae, Johan Hallborn, Mats Walfridsson, Ulla Airaksinen, Heikki Ojama, Bärbel Hahn-Hägerdal, Merja Penttilä, Sirkka Keränen (research)
- 1096 Non-Hydrolytic Disruption of Cellulose Fibres by the Binding Domain of a Bacterial Cellulase, Neena Din, Neil R. Gilkes, Bahar Tekant, Robert C. Miller, Jr., R. Anthony J. Warren, Douglas G. Kilburn (research)
- 1100 Modular Integrated Fluidized Bed Bioreactor Technology, M. Reiter, G. Blüml, T. Gaida, N. Zach, F. Unterluggauer, O. Doblhoff-Dier, M. Noe, R. Plail, S. Huss, H. Katinger (research)
- 1103 Evidence for T-DNA Mediated Gene Targeting to Tobacco Chloroplasts, K. Venkateswarlu, R.N. Nazar (research note)
- 1106 Sequencers and Sequencing Reagents (product page) 1116 Biohazardous Words, Max J. Kennedy (opinion)

DECEMBER

- 1301 Double-Dealing and Dubious Claims, Douglas McCormick (opinion)
- The Human Element, Bernard Dixon (opinion)
- 1304 Secondaries on the Heels of IPOs, Christine Punzo (news)
- 1310 Patenting Human Genes Raises Storm, Mimi Bluestone (news)
- 1312 Biotech Research Alliances on the Rise, B.J. Spalding (news)
- 1313 New FDA Rules for Food and Drugs, Jeffrey L. Fox (news)
- 1313 Xoma Tops Centocor, Mimi Bluestone (news)
- 1316 Success in Pollution Prevention, Russ Hoyle (news)
- 1318 Harmonize Global Patents, says OTA, Jeffrey L. Fox (news)
- 1319 BT Resistance Prompts Early Planning, Jeffrey L. Fox (news)
- 1320 Checking Sources: The Serum Supply Secret, John Hodgson (article)
- The Anatomy of Access: Peptide Drug Delivery, Stephen M. Edgington (article)
- 1334 Tracking Trends in U.S. Biotechnology, Mark D. Dibner (article)
- 1338 Pharmaceutical Price Control: Will Governments Harmonize Regulations? B.J. Spalding (article)
- The Loneliness of the Long-Distance Gel-Runner, David T. Kingsbury (article) 1344 LIMS and the Human Genome Project, Tim Hunkapiller, Leroy
- Hood (article) 1347 The Oligosaccharides of Glycoproteins: Bioprocess Factors

Glycoprotein Properties, Charles F. Goochee, Michael J. Gramer, Dana C. Andersen, Jennifer B. Bahr, James R. Rasmussen (review)

1356 A New Generation of Animal Cell Expression Vectors Based on the Semliki Forest Virus Replicon, Peter Liljeström, Henrik

Garoff (research) 1363 Engineered Resistance to Tomato Spotted Wilt Virus, a Negative-Strand RNA Virus, Jan J.L. Gielen, Peter de Haan, Ad J. Kool, Dick Peters, Mart Q.J.M. van Grinsven, Rob W.

Goldbach (research) 1369 Targeting Recombinant Antibodies to the Surface of Escherichia coli: Fusion to a Peptidoglycan Associated Lipoprotein, Patrick Fuchs, Frank Breitling, Stefan Dübel, Thomas Seehaus, Melvyn

Little (research) 1373 Fab Assembly and Enrichment in a Monovalent Phage Display System, Lisa J. Garrard, Maria Ynag, Mark P. O'Connell, Robert F. Kelley, Dennis J. Henner (research)

1378 A Streptavidin-Protein A Chimera that Allows One-Step Production of a Variety of Specific Antibody Conjugates, Takeshi Sano, Charles R. Cantor (research)

1382 Enhanced Secretion of Human Nerve Growth Factor from Saccharomyces cerevisiaeusing an Advanced d-Integration System, Akira Sakai, Fumiko Ozawa, Takako Higashizaki, Yuki Shimizu, Fumio Hishinuma (research)

1386 Evaluation of Foreign Gene Codon Optimization in Yeast: Expression of a Mouse IG Kappa Chain, Leszek Kotula, Peter J. Curtis (research)

1390 LIMS-Related Hardware and Software (product page)

1394 Culture Gaps; Smoothing Wrinkles (letters) 1400 The Value of Controversy, Susanne L. Huttner (opinion)

Author Index

Abbott, Alison	694	Bülow, L
Airaksinen, Ulla	1090	Bundell,
Allcock, Harry R.	468	Burger, H
Amellal, N.	968	Caetano-
An, Gil-Hwan	70	Callaghar
Andersen, Dana C.	1347	Callahan,
Anthony, R.	1096	Cantor, C
Aramori, Ichiro	188	Carr, Fran
Armstrong, Gale	976	Carrez, D
Arnold, Frances H.	151, 994, 1073	Carter, Gi
Auerbach, Robert	70	Carver, A
Bacchetta, F.	968	Chabner,
Baduel, P.	968	Chandler
Baetselier, A. De	559	Chang, T.
Bahr, Jennifer B.	1347	Charbit,
Bailey, James E.	477	Chater, K
Bakhuis, Janny G.	47	Chen, Ken
Baliu, Enrique F.	976	Cheng, L
Ballance, D.J.	183	Choudar
Ballantine, S.P.	455	Christou,
Bañó, M. Carmen	468	Chua, Na
Barnett, Christopher C.		Clare, J.J.
Bartlett, Catherine	839	Clerck, L
Bäsecke, Jörg	604	Cohen, Si
Bassam, Brant J.	553	Colman,
Bassett, Peter	623	Contrera
Beck, Jeffrey	173	Cook, R.
Becquart, J.	968	Cook, Sh
Bedzyk, William D.	165	Copley,
Belfield, G.P.	183	Cordts, J
Berg, Paul	342	Cottom,
Berka, Randy M.	562, 976	Crensha
Beukelaer, M. De	559	Culp, Jef
	12, 220, 786, 900	Curtis, Jo
Bielich, Jane	70	Curtis, P
Bird, Alison S.	635	Dallig, M
Bird, Colin R.	635	Danhash
Bizley, Richard E.	619	Davis, Fr
Blain, Ian	635	Davis, Go
Bliss, Jonathan G.	873	Delers, A
Bloebaum, Peggy	976	DeMode
Bluestone, Mimi	910, 912, 1028,	Denman
	1310, 1313	Desai, N
Blüml, G.	1100	Devine,
Bodie, Elizabeth	976	Dibner,
Boer, Herman de	844	Din, Nee
Boniwell, Jeremy M.	635	DiTullio
Bono, Angiola	694, 918	Dixon, Bo
Boot, C.	74	31
Bowden, Gregory A.	725	
Bower, Ben	976	Doblhoff
Bramley, Peter M.	635	Dohet, P.
Breitling, Frank	1369	Dong, Jin
Bremner, Patricia	266	Dorssers
Bridgen, Pamela J.	492	Drumhel
Brown, Sherri M.	743	Dubel, St
Bruton, Celia J.	652	Duhoux,
Buchner, Johannes	157, 825	Dunn-Co
Buckholz, Richard G	. 1067	Dunn, Pa

Bülow, Leif	280
Bundell, K.	74
Burger, Herman	47
Caetano-Anollés, Gustavo	553
Callaghan, D.O.	170
Callahan, A.M.	853
Cantor, Charles R.	1378
Carr, Frank J.	266
Carrez, Dirk	378
Carter, Gina L.	976
Carver, A.	830
Chabner, Bruce A.	1012
Chandler, Stephen F.	864
Chang, Tse Wen	53
Charbit, A.	170
Chater, Keith F.	652
Chen, Keqin	1073
Cheng, Le-Mei	996
Choudary, P.V.	848
Christou, Paul	957
Chua, Nam-Hai	858
Clare, J.J.	455
Clerck, L. De	559
Cohen, Smadar	468
Colman, A.	830
Contreras, Roland	378
Cook, R. Frank	748
Cook, Sheila J.	748
Copley, C.G.	74
Cordts, J.M.	853
Cottom, D.	830
Crenshaw, R.	848
Culp, Jeffrey S.	173
Curtis, Joseph E.	477
Curtis, Peter J.	1386
Dallig, Michael J.	864
Danhash, Nadia	179
Davis, Frances M.	53 165
Davis, George T.	173
Delers, Anne	477
DeModena, John A. Denman, Julie	835, 839
Desai, Neil P.	568
Devine, Catherine S.	869
Dibner, Mark D.	1334
Din, Neena	1096
DiTullio, Paul	835
Dixon, Bernard 6, 12, 16, 115	
315, 403, 415, 418, 99	
683, 697, 779, 899,	
Doblhoff-Dier, O.	1100
Dohet, P.	559
Dong, Jin-Zhou	858
Dorssers, Lambert C.J.	47
Drumheller, Paul D.	568
Dubel, Stefan	1369
Duhoux, Emile	461
Dunn-Coleman, Nigel S.	976
Dunn, Patrick W.	41

Author Index

Durfee, Steven	57
Ebersole, Richard C.	450
Ebert, Karl M.	835, 839
Eby, Michael J.	528
Edgington, Stephen M.	793, 902,
933, 1020, 10	36, 1042, 1327
Edmunds, Timothy	839
Epstein, Henry F.	41
Erpicum, T.	559
Evans, L.R.	183
Eyestone, Will	844
Faison, Brendlyn D.	951
Favre-Bulle, Olivier	367
Fiers, Walter	378
Flamm, Eric L.	349
Fleer, R.	968
Fletcher, Jonathan D.	635
Ford, Tameria L.	957
Foss, Robert P.	450
Fournier, A.	968
Fowler, E.	848
Fowler, Tim	562
Fox, Jeffrey L. 14, 121,	
417, 507, 508, 602,	603, 606, 693,
695, 791, 797, 9	
1020 12	
1033, 13	13, 1318, 1319
Frederickson, Robert C.A	
Frederickson, Robert C.A	. 1042
Frederickson, Robert C.A Friedman, Elizabeth	. 1042 610
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus	. 1042 610 435
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E.	. 1042 610 435 743
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick	. 1042 610 435 743 1369
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick Fukagawa, Masao	. 1042 610 435 743 1369 188
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick Fukagawa, Masao Fukuhara, H.	. 1042 610 435 743 1369 188 968
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick Fukagawa, Masao Fukuhara, H. Furze, Julie M.	. 1042 610 435 743 1369 188 968 266
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick Fukagawa, Masao Fukuhara, H. Furze, Julie M. Gaida, T. Galazzo, Jorge L. Galli, A.	. 1042 610 435 743 1369 188 968 266 1100
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick Fukagawa, Masao Fukuhara, H. Furze, Julie M. Gaida, T. Galazzo, Jorge L. Galli, A.	. 1042 610 435 743 1369 188 968 266 1100 477
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick Fukagawa, Masao Fukuhara, H. Furze, Julie M. Gaida, T. Galazzo, Jorge L.	. 1042 610 435 743 1369 188 968 266 1100 477 1080
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick Fukagawa, Masao Fukuhara, H. Furze, Julie M. Gaida, T. Galazzo, Jorge L. Galli, A. Galosy, Sybille	. 1042 610 435 743 1369 188 968 266 1100 477 1080 869
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick Fukagawa, Masao Fukuhara, H. Furze, Julie M. Gaida, T. Galazzo, Jorge L. Galli, A. Galosy, Sybille Gardner, David C.J.	. 1042 610 435 743 1369 188 968 266 1100 477 1080 869
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick Fukagawa, Masao Fukuhara, H. Furze, Julie M. Gaida, T. Galazzo, Jorge L. Galli, A. Galosy, Sybille Gardner, David C.J. Garner, I.	. 1042 610 435 743 1369 188 968 266 1100 477 1080 869 179 830
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick Fukagawa, Masao Fukuhara, H. Furze, Julie M. Gaida, T. Galazzo, Jorge L. Galli, A. Galosy, Sybille Gardner, David C.J. Gamer, I. Garoff, Henrik	. 1042 610 435 743 1369 188 968 266 1100 477 1080 869 179 830
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick Fukagawa, Masao Fukuhara, H. Furze, Julie M. Gaida, T. Galazzo, Jorge L. Galli, A. Galosy, Sybille Gardner, David C.J. Garner, I. Garoff, Henrik Garrard, Lisa J.	. 1042 610 435 743 1369 188 968 266 1100 477 1080 869 179 830 1356
Frederickson, Robert C.A Friedman, Elizabeth Fritsch, Klaus Fromm, Michael E. Fuchs, Patrick Fukagawa, Masao Fukuhara, H. Furze, Julie M. Gaida, T. Galazzo, Jorge L. Galli, A. Galosy, Sybille Gardner, David C.J. Garner, I. Garard, Lisa J. Geisow, Michael J.	. 1042 610 435 743 1369 188 968 266 1100 477 1080 869 179 830 1356 1373 921

Giles, Adele S.	805
Gilkes, Neil R.	1096
Gleeson, Martin A.G.	1067
Godown, Richard D.	588
Goldbach, Rob W.	1363
Gonsalves, Carol	752
Gonsalves, Dennis	752
Goochee, Charles F.	1347
Goodey, A.R.	183
Gordon, Katherine	835, 839
Gossett, Lani A.	53
Gramer, Michael J.	1347
Greenwold, Douglas J.	716
Gresshoff, Peter M.	553
Guthrie, Ellen P.	652
Ha-Thi, V.	559
Haan, Peterde	1363
Hahn-Hägerdal, Bärbel	1090
	373
Halk, Edward L.	
Hallborn, Johan	1090
Hammock, B.D.	848
Hanotier, J.	559
Harayama, Shigeaki	296
Harris, William J.	266
Harrison, Gail I.	873
Harrison, Roger G.	443
Hartmanis, Maris	363
Hayasaka, Satoko	648
Hayes, Michael	839
Heinsohn, Henry	976
Hellmig, Brian	173
Henner, Dennis J.	1373
Hermstadt, Corinna	657
	29
Hess, Charles E.	
Higashizaki, Takako	1382
Hill, Karen K.	373
Hill, Stephen R.	869
Hinman, Richard L.	533
Hirani, Shirish	839
Hishinuma, Fumio	1382
Hjorth, Richard N.	805
Hodgson, Clague P.	748
Hodgson, John	5, 19, 125,
149, 224, 237, 3	
421, 504, 508, 5	10, 609, 628,
696, 794, 796, 8	808, 810, 926,
	, 1056, 1320
Hoffman, Stephen	57
Hofnung, M.	170
Hollenberg, Cornelis P.	291
Hommes, Ronald W.J.	47
Hood, Leroy	1344
Hôte, H.L.	968
Hoyle, Russ	1034,1316
Hubbell, Jeffrey A.	568
Hughes, Dallas E.	477
Hung, Paul P.	805
Hunkapiller, Tim	1344
Huss, S.	1100
Huttner, Susanne L.	1400
Imanaka, Hiroshi	188
Isogai, Takao	188
Iwami, Morita	188
Jacob, Miriam I.	226
	258
Jacobs, Jeffrey W.	
Jacobs, Thomas W.	165
Janowicz, Zbigniew A.	291
Jarvis-Eagan, Nancy	373
Jayme, David W.	716
Jia, Shi-Rong	858, 996
Johansen, Hanne	173
Johansson, Gunnar	286
Johnson Eric A	
Johnson, Eric A.	70
Jones, S. Tarran	88

ones, S.	183
ones,Stephanie	623
ung, G.	968
Kambara, Hideki	648
Kamita, S.G.	848
Katinger, H.	1100
Ke-Qiang, Mang	705
Kelley, Robert F.	1373
Kellis, Jr., James T.	994
Kennedy, Max J.	1116
Keränen, Sirkka	1090
Keup, Peter	291
Kiefhaber, Thomas	825
Kilburn, Douglas G.	1096
King, David	511
Kinghorn, James R.	378
Kingma, Jaap	367
Kingsbury, David T.	1341
Klein, Barbara K.	869
Knight, Pamela	16, 17
Kodama, Katherine H.	976
Kofron, Matt	957
Kohler, Hans-Helmut	825
Köhler, Kristina	642
Kohsaka, Masanobu	188
Kojo, Hitoshi	188
Kondo, Akihiko	642
Kooiman, Patricia	844
Kool, Ad J.	1363
Kootwijk, Erika	
Kotula, Leszek	844 1386
Krahn, Karen J.	373 919
Krebs, Richard	
Krimpenfort, Paul	844
LaCost, Regina	976
Lambert, Claude	80
Lambert, Martin Lamsa, Michael	266
	976
Langer, Robert	468, 630
Lasters, Ignace	738
Lazo, Gerard R.	963
Leclerc, C.	170
Leenutaphong, Deborah L.	477
Lemson, Patty J.	47
Levner, Mark H.	805
Li, Chang-Gong	996
Liao, Louise W.	373
Liljeström, Peter	1356
Ling, Kaishu	752
Little, Melvyn	1369
Ljungquist, Charlotta	642
Loesch-Fries, L. Sue	373
Lu, Chin-Yi	864
Ludwig, Robert A.	963
Luiten, Ruud G.M.	738
Maddox, D.	848
Maeda, S.	848
Magnolo, Sharon K.	473
Månsson, Mats-Olle	280
Mante, S.	853
Manuso, James S.J.	430
Marcil, Robert A.	657
Martin, Lori	461
Martineau, P.	170
Massia, Stephen P.	568
Mathewson, Reyne S.	373
Matthews, Thomas J.	173
Maury, I.	968
Mayaux, J.F.	968
	113, 209,
	681, 690,
777, 799,	
McCutchen, B.F.	848
McKillip, Edward R.	805
	000

McPheat, W.L.	74	Ratner, Mark 11, 25, 122,
McPherson, John M.	839	128, 327, 328, 410, 414, 506
Mead, David A.	657	Ray, John A. 635
Memon, Mushtaq A.	835	Rayment, F.B. 455
Merckelbach, Armin	291	Re, Diane 743
Merlo, Donald J.	373	Reeves, D. 830
Michaels, Stephen	941	Reiter, M. 1100
Miller, D.R.	143	Rekik, Monique 296
Miller, Jr., Robert C.	1096	Robinson, Nancy 976
Miller, Lantz	139	Romanos, M.A. 455
Miller, Lois K.	1086	Rosen, Stephen 396
Miller, Paul S.	358	Rosenberg, Martin 173
Moir, P.D.	183	Rosenberg, S. 559
Moks, Tomas	363	Rowold, Edwin 869
Monastersky, Glen M.	835	Rudolph, Rainer 157, 825
Morgens, P.H.	853	Sakai, Akira 1382 Saloheimo, Markku 987
Mosbach, Klaus Moses, Marsha A.	280	
	630 676	Samuelsson, Elisabet 368 Sano, Takeshi 1378
Moses, Vivian	738	
Mrabet, Nadir T.	648	
Nagai, Keiichi Namba, Shigetou	752	Sawyer, Roy T. 513 Schindler, Joanne E. 838
Nazar, R.N.	1103	Schmeichel, Cynthia]. 1068
Nelson, Steven E.	373	Schouten, Toine 367
Neuhaus, G.	1080	Schuch, Wolfgang 638
Neuhaus-Url, G.	1080	Schuurhuizen, Paul W. 738
Niku-Paavola, Marja-Leena	987	Schwarzer, Astrid 84
Nilsson, Björn	642	Scorza, R. 855
Noe, M.	1100	Scott, A. 830
Noordam, Bert	47	Seehaus, Thomas 1369
Noriega, Clemencia	991	Selgrath, James P. 835
Nugent, Greg	864	Shackley, Simon 1056
O'Connell, Mark P.	1373	Shewmaker, C.K. 985
O'Day, Christine	839	Shimizu, Yuki 1385
O'Reilly, David R.	1086	Sikdar, Subhas K. 25%
O'Rourke, Katherine	57	Silver, Jerry 1049
Oakes, J.V.	982	Simons, P. 830
Ojama, Heikki	1090	Skerra, Arne 27:
Oldham, Robert K.	772	Sleep, D. 183
Olins, Peter O.	869	Slightom, Jerry L. 755
Oliver, Stephen G.	179	Smith, Christine E. 869
Ono, Takaharu	188	Smith, Lloyd M. 65'
Ozawa, Fumiko	1382	Smith, Thomas E. 835
Page, Martin J.	64	Söndahl, Maro R. 99
Palekar, N.	848	Spalding, B.J. 221, 229, 330, 338, 413
Paredes, Angel M.	725	427, 509, 539, 596, 600, 615, 690
Penttilä, Merja	1090	701, 789, 817, 822, 823, 914
Perry, L. Jeanne	731	916, 1030, 1032, 1050, 1312, 1330
Persoon, Niek L.M.	47	Sreekrishna, K. 45: Ståhlberg, Jerry 28
Persson, Mats	280 1363	Ståhlberg, Jerry 280 Stalker, D.M. 980
Peters, Dick	1036	Stanssens, Patrick 738
Peterson, Lotten Petit, Annik	461	Stein, Pascal A. 96
Pettersson, Göran	286	Stetler, Gary 5
Pey, N. Kristy	657	Steven, J. 183
Pfitzinger, Ilse	273	Strasser, Alexander W.M. 29
Phelep, Michèle	461	Strijker, Rein 84
Pieper, Frank	844	Sydenham, Mark A. 6
Piontek, Michael	291	Taylor, Geraldine 26
Plail, R.	1100	Tedesco, John 5
Platenburg, Gerard	844	Tekant, Bahar 109
Plückthun, Andreas	273,545	Tempé, Jacques 46
Potrykus, I.	1080	Tempest, Philip R. 26
Powell, Kevin T.	873	Tepfer, David 8
Prakash, Jitendra	607	Teulieres, Chantal 63
Przetak, Melinda	976	Tkacik, Gabriel 94
Pühler, Alfred	84	Todd, Robert J. 99
Punzo, Christine	799, 1304	Ueda, Yoshio 18
Quax, Wim J.	738	Uhlén, Mathias 36
Rademakers, Adam	844	Unterluggauer, F. 110
Raines, Lisa J.	244	van Beckhoven, Ruud F.W.C. 4
Rangwala, Shaukat H.	477	van den Hondel, Cees A.M.J.J. 37
Rashka, Kay E.	373	van den Brock, Sandra 84
Rasmussen, James R.	1347	van der Schans, Adriaan 84

Author Index

van Grinsven, Mart	Q.J.M.	1363
van Leen, Rob W.	~	47
Van Brunt, Jennifer	137, 332, 3	34, 439
Vasavada, A.		559
Vasil, Indra K.		743
Vasil, Vimla		743
Veide, Andres		642
Veilleux, Constance		731
Venkateswarlu, K.		1103
Visscher, Karyn B.		468
Vitale, James A.		835
Vitez, Laura		57
Volrath, S.		848
Voss, Edward W.		165
Wadensten, Henrik		363
Wagemaker, Gerard		47
Wagenbach, Michael		57
Waldner, H.		1080
Walfridsson, Mats		1090
Ward, Michael D.		450
Ward, Michael		976
Wardley-Richardson	.Terese	864
Warren, R. Anthony		1096
Wasserfallen, Alain	,	296
Weaver, James C.		873
Werts, C.		170
Wetzel, Ronald		731
Weydemann, Ulrike		291
Wieczorek, Anna		57
Wilkinson, David L.		443
Williams, Gregory B		873
Wilmut, I.		830
Wilson, Lori J.		976
Witholt, Bernard		367
Wright, G.		830
Xu, Ning		996
Yang, Mei-Zhu		858
Yeh, P.		968
Ying-Shan, Han		711
Ynag, Maria		1373
Young, Mark		818
Young, Richard		864
Yuan, Jing		996
Zach, N.		1100
Zhang, Li-Jian		996
Zhao, Nan-Ming		996
Emao, i vair wing		000